

Application No.: 09/856,414
Amendment dated: November 8, 2004
Reply to Office Action of August 6, 2004
Attorney Docket No.: 21295.24

b.) Remarks

Claims 1-16 are now pending in this application. Claims 1-3, 5, 7 and 10-11 have been amended in various particulars as indicated below. Claim 16 is new. Support may be found in claim 13 and also in the specification, page 3, third paragraph.

Turning now to the merits, Claims 1 and 2 were objected to because they include reference characters, which are not enclosed within parentheses. Claims 1 and 2 do not have any reference figures.

Claims 5 and 7 are objected to because of the following informalities: The terms **[and the]** and **[?is such that]** have been corrected by amendment.

Claims 1-3, 5-6, and 10 were rejected under 35 U.S.C. 112 for various antecedent basis issues and the claims have been amended to address these.

Claims 1-5, 7, 8 and 13-15 were rejected under 35 U.S.C. 102(b) as being anticipated by Christopher R. Fairley et al. (PCT/US95/00665, Appendix G, A Method and Apparatus for Performing an Automatic Focus Operation, June 3rd, 1994, and referred to as Fairley hereinafter). This rejection is respectfully traversed for the following reasons.

It is well established that a claim is anticipated under 35 U.S.C. §102, only if each and every element of the claim is found in a single prior art reference.¹ Moreover, to anticipate a claim under 35 U.S.C. §102, a single source must contain each and every element of the claim "arranged as in the claim."^{2,3} Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference.⁴ If each and every element of a claim is not found in a single reference, there can be no

¹ *Veregal Bros. v Union Oil Co. of California*, 814 F.2d 628, 631, 2USPQ2d 1051, 1053 (Fed. Cir. 1987).

² *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984).

³ *Lewmar Marine Inc. v. Barient, Inc.*, 827 F.2d 744, 747, 3 U.S.P.Q. 2d 1766, 1768 (Fed. Cir. 1987), cert. denied, 484 U.S. 1007 (1988).

⁴ *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

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anticipation. Dixon does not describe the element of modifying the location of the secondary maxima of the corresponding PSF.

Fairley, has not disclosed inputting sample parameters such as size, density of dye molecules, fluorescence lifetime, excitation and emission wavelengths and the like. Nor does Fairley disclose a microscope system that then proposes to the user optimal microscope settings, such as which objective to use, optimal irradiation intensity, detection pinhole radius, photomultiplier voltage and the like, as claim 1 now indicates (support may be found on pages 9-10, items 1-5. The only system parameter addressed by Fairley is focus (see summary of the invention). This is what Fairley has to say about selecting an objective: "A turret (23) allows objectives of different magnifying power to used." page 312, lines 25-27. Further, he has this to say about selecting a pinhole diameter: "The spatial filter consists of optics which image the laser light on a pinhole whose diameter has been selected to re-image through the downstream optics and objective lens (5) producing a diffraction limited spot on the sample (6)." page 311, lines 15-19. There is offered no guidance on how to select the pinhole diameter. It is clear from 5.3.2 Recipe (page 325), and 4.2.3.2 Laser scan parameters (page 326), that the user is expected to come up with laser intensities and other parameters on his own for a given sample, with no guidance from Fairley's microscope system.

Applicant submits that claim 1, as now amended, and its dependent claims, are not anticipated by Fairley.

Claims 6 and 9-12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Fairley, and in view of Timothy V. Thompson (U.S. Patent No. 5,483,055, and referred to as Thompson hereinafter). This rejection is respectfully traversed for the following reasons.

For an obviousness rejection to be proper, the Patent Office must meet the burden of establishing a prima facie case of obviousness. The Patent Office must meet the burden of establishing that all elements of the invention are disclosed in the cited publications, which must have a suggestion, teaching or motivation for one of ordinary

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skill in the art to modify a reference or combined references.⁵ The cited publications should explicitly provide a reasonable expectation of success, determined from the position of one of ordinary skill in the art at the time the invention was made.⁶ As argued below, this burden has not been met.

Applicant submits that the Patent Office has not met the burden of establishing a prima facie case of obviousness. The Patent Office is respectfully asked to consider *In re Lee*, in which "the Board of Patent Appeals and Interferences improperly relied upon 'common knowledge and common sense' of person of ordinary skill in the art to find invention of patent application obvious over combination of two prior art references . . ." 61 U.S.P.Q.2d 1430 (Fed. Cir. 2002). The Court went on to say: "In its decision on Lee's patent application, the board rejected the need for 'any specific hint or suggestion in a particular reference to support the combination of the Northrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action." *Id.* at 1434.

The applicant would also like to bring to the Patent Office's attention a ruling that says that "[O]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching, suggestion or incentive supporting the combination." *Carella v. Starlight Archery and Pro Line Co.*, 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986) (citing *ACS Hosp. Syss., Inc. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed Cir. 1984).

Even if the Patent Office had created a prima facie case of obviousness, which Applicant in no way concedes, Applicant rebuts. Thompson does not cure the defects of Fairley. The only system parameter addressed by Thompson is focus. Thomson does not teach how to select pinhole diameters, irradiation intensities, which objective to use, nor photomultiplier voltage optimization, as does the invention as presently claimed.

⁵ *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

⁶ *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970);

Amgen v. Chugai Pharmaceuticals Co., 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996);

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Applicant submits that if Fairley were combined Thompson, they would still not disclose the invention as presently claimed, and claim 1, and its dependent claims, are not obvious in view of this combination.

Applicant thanks the Examiner for bringing the Fairley 5,672,861 and 5,783,814 patents to his attention.

Applicant believes that the present application is in condition for allowance. A Notice of Allowance is respectfully solicited. Should any questions arise, the Examiner is encouraged to contact the undersigned.

Respectfully submitted,

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